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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,580	02/13/2004	Masashi Takagi	4041K-000175	9307

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EXAMINER

NGUYEN, HOANG M

ART UNIT PAPER NUMBER

3748

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/779,580

Applicant(s)

TAKAGI, MASASHI

Examiner

Hoang M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02-12-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-12, 15, are rejected under 35 U.S.C. 102(b) as being anticipated by US 6138616 (Svensson).

Svensson discloses an engine comprising a compressed gas tank 15, a plurality of pistons inside cylinders 3, heating means including fuel from injection pump 70 and igniter. Regarding claim 4, it's well known air inherently has oxygen. Regarding claim 7, the exhaust gas from the engine is sucked and further compressed inside turbine 5. Regarding claims 8-9, because the engine is working in cycle, the cylinders repeatedly receive compressed air, expand, then discharge and go back to another cycle, that reads on claims 8-9.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 13, 14, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6138616 (Svensson) in view of U.S. 3861367 (Kelmar). Svensson discloses all the claimed subject matter as set forth above, but does not disclose the oxidizing step, compressor working with an air conditioner. Kelmar is relied upon to disclose an

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engine comprising an oxidizer from oxygen tanks 20, air conditioner 35 with compressor 19 and compressed air tank 18 . It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide oxidizer in Svensson as taught by Kelmar for the purpose of improving the efficiency of the system, and using compressor with air conditioner in Svensson as taught by Kelmar for the purpose of achieving a cooling system.

Claims 16-23, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6138616 (Svensson) in view of U.S. 5907950 (Enderle et al). Svensson discloses all the claimed subject matter as set forth above, but does not disclose the catalyst. Enderle is relied upon to disclose an engine comprising a catalyst 36 at the exhaust of the engine. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a catalyst in Svensson as taught by Enderle et al for the purpose of improving exhaust condition of the system. Regarding claims 19-23, the operating steps of these claims are simply the basic operation of the engine and the system.

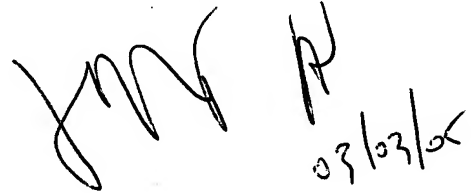
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Clark, Chorman, and Wang disclose engines using compressed gas.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion, can be reached on (571)-272-4859. The fax phone number for the Examiner is (703) 872-9302 for regular communication, and (703) 872-9303 for after final communication.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-3700.

Handwritten signature of Hoang Minh Nguyen and the date 03/03/05.

HOANG NGUYEN  
PRIMARY EXAMINER  
ART UNIT 3748

Hoang Minh Nguyen  
3/3/05